

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
6 November 2003 (06.11.2003)

PCT

(10) International Publication Number  
**WO 03/091640 A1**

(51) International Patent Classification<sup>7</sup>: **F25C 1/04**

(21) International Application Number: PCT/KR03/00810

(22) International Filing Date: 21 April 2003 (21.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10-2002-0022259 23 April 2002 (23.04.2002) KR

(71) Applicant and

(72) Inventor: **PARK, Chang-Yong** [KR/KR]; 12-2, 1-ga, Kwan-dong, Choong-ku, Incheon City 400-041 (KR).

(74) Agent: **BAE, Yong-cheol**; 100-305, Bucheon Techno-park, 364, Samjung-dong, Ojung-gu, Bucheon City, Kyungki-do 421-740 (KR).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

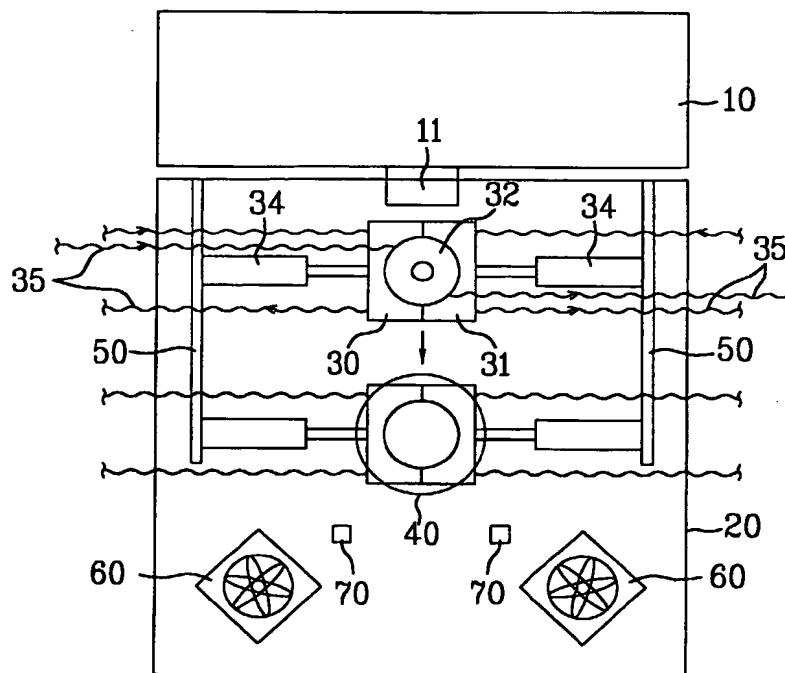
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHOD FOR PRODUCING ICE CONTAINER USING ICE POWDERS



(57) Abstract: Disclosed are an apparatus and method for producing an ice container, in which a freezer is provided with an ice grinding unit and an ice container forming unit for compressing ice powders to form the ice container, so that deformation of the ice container may be minimized when forming the ice container by compressing the ice powders, thereby allowing mass production of the ice container and reducing a manufacturing cost of the ice container. The apparatus includes an ice grinding unit for grinding an ice mass into ice powders; a freezer positioned at one side of the ice grinding unit for maintaining the ice grinding unit in a proper temperature to prevent the ice powders from being molten, an ice container forming unit installed in the freezer for receiving and compressing the ice powders to form the ice container, a guide coupled to the ice container forming unit for guiding movement of the ice container forming unit by a given distance, a turntable rotatably installed in the freezer, the ice container compressed by the ice container forming unit moved by the guide being laid thereon, and a

plurality of cold air distributors installed at an outside of the turntable for blasting cold air onto a surface of the ice container to freeze the surface of the ice container.